ABSTRACT OF THE DISCLOSURE

A welding machine with a wire feeder and a controller is disclosed. The wire feeder includes a wire feed motor with a motor speed input. The controller is coupled to the motor speed control input. A user selectable wire feed speed input is also connected to the controller. The controller has an input circuit coupled with a non-linear stage such that the relationship between the user selectable wire feed speed input and the actual wire feed speed is not linear. The selectable input may be a potentiometer mounted on a front panel as the user selectable wire feed speed input. The non-linearity may be continuous or two discrete gains.